

WHAT IS CLAIMED IS:

1. A relay device comprising:  
a first signal reception unit receiving a signal from the outside;  
a first radio communication unit transmitting the signal by radio  
that is received by said first signal reception unit;  
5 a second radio communication unit provided separately from said  
first radio communication unit and transmitting/receiving a signal by radio;  
a detection unit detecting transmission/reception of the signal by  
said second radio communication unit; and  
a first inhibition unit inhibiting, during a period in which  
10 transmission/reception of the signal by said second radio communication  
unit is detected by said detection unit, transmission of the signal by said  
first radio communication unit.
2. The relay device according to claim 1, further comprising a  
second signal transmission/reception unit provided separately from said  
first signal reception unit and transmitting/receiving a signal to/from the  
outside, wherein  
5 said second radio communication unit transmits the signal in  
response to reception by said second signal transmission/reception unit.
3. The relay device according to claim 1, further comprising a  
storage unit storing, during the period in which transmission of the signal  
by said first radio communication unit is inhibited by said inhibition unit,  
the signal received by said first signal reception unit.
4. The relay device according to claim 3, wherein  
said first radio communication unit transmits the signal stored by  
said storage unit when transmission/reception of the signal by said second  
radio communication unit is finished.
5. The relay device according to claim 1, further comprising a

second inhibition unit inhibiting, when the signal received by said first signal reception unit is a predetermined signal, transmission of the signal by said first radio communication unit.

6. A method of relaying a signal by a relay device including a first signal reception unit receiving a signal from the outside, a first radio communication unit transmitting the signal by radio that is received by said first signal reception unit and a second radio communication unit provided

5 separately from said first radio communication unit and transmitting/receiving a signal by radio, comprising the steps of:

receiving a signal by said first signal reception unit;  
transmitting said received signal by said first radio communication unit;

10 detecting transmission/reception of a signal by said second radio communication unit; and

inhibiting, during a period in which transmission/reception of the signal by said second radio communication unit is detected, transmission of the signal by said first radio communication unit.

7. A relay program product executed by a relay device including a first signal reception unit receiving a signal from the outside, a first radio communication unit transmitting the signal by radio that is received by said first signal reception unit and a second radio communication unit provided

5 separately from said first radio communication unit and transmitting/receiving a signal by radio, said relay device executing said relay program product to perform the steps of:

receiving a signal by said first signal reception unit;  
transmitting said received signal by said first radio communication unit;

10 detecting transmission/reception of a signal by said second radio communication unit; and

inhibiting, during a period in which transmission/reception of the signal by said second radio communication unit is detected, transmission of

15 the signal by said first radio communication unit.

8. A computer-readable recording medium having a relay program recorded thereon, said relay program being executed by a relay device including a first signal reception unit receiving a signal from the outside, a first radio communication unit transmitting the signal by radio that is received by said first signal reception unit and a second radio communication unit provided separately from said first radio communication unit and transmitting/receiving a signal by radio, and said relay device executing said relay program to perform the steps of:

5 receiving a signal by said first signal reception unit;  
10 transmitting said received signal by said first radio communication unit;

detecting transmission/reception of a signal by said second radio communication unit; and

15 inhibiting, during a period in which transmission/reception of the signal by said second radio communication unit is detected, transmission of the signal by said first radio communication unit.